10/670,015

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FILE 'HOME' ENTERED AT 21:32:11 ON 19 FEB 2007

=> file biosis medline caplus wpids uspatfull
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*** YOU HAVE NEW MAIL ***

=> s (fluorenylmethoxycarbonyl or fmoc)(6a) basw
L1            0 (FLUORENYLMETHOXYCARBONYL OR FMOC)(6A) BASW

=>  s (fluorenylmethoxycarbonyl or fmoc)(6a) base
L2         1219 (FLUORENYLMETHOXYCARBONYL OR FMOC)(6A) BASE

=> s l2 and nucleotide
L3          521 L2 AND NUCLEOTIDE

=> s l3 and synthesis (4a) oligonucleotide
L4          190 L3 AND SYNTHESIS (4A) OLIGONUCLEOTIDE

=> s l4 and solid support
L5          171 L4 AND SOLID SUPPORT

=> s l5 and solid support (4a) alkyl amine
L6            0 L5 AND SOLID SUPPORT (4A) ALKYL AMINE

=> s l5 and alkyl amine
L7            5 L5 AND ALKYL AMINE

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8            5 DUP REM L7 (0 DUPLICATES REMOVED)

=> s l8 and dbu
L9            2 L8 AND DBU

=> d l9 bib abs 1-2

L9   ANSWER 1 OF 2  USPATFULL on STN
AN     1998:14925  USPATFULL
TI     Phosphoramidate and phosphorothiomidate oligomeric compounds
IN     Cook, Phillip Dan, Vista, CA, United States
       Acevedo, Oscar, San Diego, CA, United States
       Hebert, Normand, Cardiff, CA, United States
PA     ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S.
       corporation)
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PI US 5717083 19980210
WO 9523160 19950831
AI US 1996-693112 19960819 (8)
WO 1995-US2267 19950223
19960819 PCT 371 date
19960819 PCT 102(e) date
RLI Continuation-in-part of Ser. No. US 1994-200638, filed on 23 Feb 1994, now patented, Pat. No. US 5637684
DT Utility
FS Granted
EXNAM Primary Examiner: Guzo, David
LREP Woodcock Washburn Kurtz Mackiewicz & Norris LLP
CLMN Number of Claims: 40
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 2743
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compounds are provided having structure (I), wherein the L groups are backbone segments, the Y and T groups are functional groups for interacting with target molecules of interest, the X groups are oxygen or sulfur and the E groups are H, conjugate groups or intermediate groups used during the synthesis of the compounds and wherein the compounds are prepared using H phosphonate type chemistry wherein the functional groups are added during an oxidation step or during a coupling step. ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 2 OF 2 USPATFULL on STN
AN 97:49731 USPATFULL
TI Phosphoramidate and phosphorothioamidate oligomeric compounds
IN Cook, Phillip D., Carlsbad, CA, United States
Acevedo, Oscar, San Diego, CA, United States
Hebert, Normand, San Marcos, CA, United States
PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 5637684 19970610
AI US 1994-200638 19940223 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Elliott, George C.; Assistant Examiner: Larson, Thomas G.
LREP Woodcock Washburn Kurtz Mackiewicz & Norris
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1746
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compounds are provided having the structure: ##STR1## wherein the L groups are spanner or linker units, the Y and T group are functional groups for interacting with target molecules of interest, the X groups are oxygen or sulfur and the E groups are H, conjugate groups or intermediate groups used during the synthesis of the compounds are prepared using H phosphonate type chemistry wherein the functional groups are added during an oxidization step.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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     (FILE 'HOME' ENTERED AT 21:32:11 ON 19 FEB 2007)

     FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 21:33:36 ON
     19 FEB 2007
L1             0 S (FLUORENYLMETHOXYCARBONYL OR FMOC)(6A) BASW
L2          1219 S (FLUORENYLMETHOXYCARBONYL OR FMOC)(6A) BASE
L3           521 S L2 AND NUCLEOTIDE
L4           190 S L3 AND SYNTHESIS (4A) OLIGONUCLEOTIDE
L5           171 S L4 AND SOLID SUPPORT
L6             0 S L5 AND SOLID SUPPORT (4A) ALKYL AMINE
L7             5 S L5 AND ALKYL AMINE
L8             5 DUP REM L7 (0 DUPLICATES REMOVED)
L9             2 S L8 AND DBU

=> s l8 not l9
L10            3 L8 NOT L9

=> d l10 bib abs 1-3

L10  ANSWER 1 OF 3  USPATFULL on STN
AN      1999:72444  USPATFULL
TI      Multifunctional linking reagents for synthesis of branched oligomers
IN      Iyer, Rajkumar Siva, Dublin, CA, United States
        Su, Sheng-Hui, San Ramon, CA, United States
        Inamdar, Anita, Sunnyvale, CA, United States
        Kalra, Krishan L., Danville, CA, United States
PA      BioGenex Laboratories, San Ramon, CA, United States (U.S. corporation)
PI      US 5916750              19990629
AI      US 1997-780725          19970108 (8)
DT      Utility
FS      Granted
EXNAM   Primary Examiner: Houtteman, Scott W.
LREP    Weseman, Esq., James C.The Law Offices of James C. Weseman
CLMN    Number of Claims: 26
ECL     Exemplary Claim: 1
DRWN    7 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 1415
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB      Reagents capable of forming branched oligomers with monomeric units are
        disclosed, together with oligomers incorporating such reagents, kits
        containing such reagents and methods for use of such reagents in forming
        oligomers with monomeric units. The present reagents can advantageously
        be used to introduce multiple labels or reporter molecules onto
        oligomers such as oligonucleotides and oligopeptides. In particular,
        non-nucleosidic phosphoramidites based on 1,3,5-tris(2-
        hydroxyethyl)cyanuric acid are disclosed. Multiply-labeled, branched DNA
        oligomer probes constructed using these phosphoramidite reagents showed
        increased signal intensity relative to singly-labeled oligomer probes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10  ANSWER 2 OF 3  USPATFULL on STN
AN      95:27404  USPATFULL
TI      Method for labeling the 3' terminus of a synthetic oligonucleotide using
        a unique multifunctional controlled pore glass (MF-CPG) reagent in solid
        phase oligonucleotide synthesis
IN      Nelson, Paul S., Union City, CA, United States
PA      Clontech Laboratories, Inc., Palo Alto, CA, United States (U.S.
        corporation)
PI      US 5401837              19950328
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AI US 1992-934582 19920824 (7)
RLI Division of Ser. No. US 1989-399658, filed on 28 Aug 1989, now patented, Pat. No. US 5141813
DT Utility
FS Granted
EXNAM Primary Examiner: Rollins, John W.; Assistant Examiner: Kunz, Gary L.
LREP Saliwanchik & Saliwanchik
CLMN Number of Claims: 9
ECL Exemplary Claim: 1,2
DRWN 7 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 602
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method for derivatizing and labeling the 3'-terminus of an oligonucleotide during solid phase synthesis comprising the use of a multifunctional reagent whose preferred structure is shown below. ##STR1## wherein CPG is controlled pore glass beads, Fmoc is 9-fluorenylmethyoxycarbonyl, and the alkylamine contains 1 to 50 carbon atoms.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 3 OF 3 USPATFULL on STN
AN 92:70202 USPATFULL
TI Multifunctional controlled pore glass reagent for solid phase oligonucleotide synthesis
IN Nelson, Paul S., Union City, CA, United States
PA Clontech Laboratories, Inc., Palo Alto, CA, United States (U.S. corporation)
PI US 5141813 19920825
AI US 1989-399658 19890828 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Brown, Johnnie R.; Assistant Examiner: Kunz, Gary L.
LREP Saliwanchik & Saliwanchik
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 597
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The subject invention concerns a novel multifunctional solid support reagent which is useful in solid phase oligonucleotide synthesis. Specifically, the reagent is used in a solid phase oligonucleotide process to chemically modify the 3' terminus of a synthetic oligonucleotide with any chemical functional group. The invention reagent can be used to construct 3' labeled oligonucleotide hybridization probes to detect the presence of a target polynucleotide in biological and clinical samples.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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     FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 21:33:36 ON
     19 FEB 2007
L1             0 S (FLUORENYLMETHOXYCARBONYL OR FMOC)(6A) BASW
L2          1219 S (FLUORENYLMETHOXYCARBONYL OR FMOC)(6A) BASE
L3           521 S L2 AND NUCLEOTIDE
L4           190 S L3 AND SYNTHESIS (4A) OLIGONUCLEOTIDE
L5           171 S L4 AND SOLID SUPPORT
L6             0 S L5 AND SOLID SUPPORT (4A) ALKYL AMINE
L7             5 S L5 AND ALKYL AMINE
L8             5 DUP REM L7 (0 DUPLICATES REMOVED)
L9             2 S L8 AND DBU
L10            3 S L8 NOT L9
L11          139 S L5 AND PHOSPHORAMIDITE
L12           10 S L11 AND PHOSPHORAMIDITE (6A) (FLUORENYLMETHOXYCARBONYL OR FMO
L13           10 S L12 NOT L8
L14           10 DUP REM L13 (0 DUPLICATES REMOVED)

=> s l14 and dbu
L15            7 L14 AND DBU

=> d l15 bib abs 1-7

L15  ANSWER 1 OF 7  USPATFULL on STN
AN     2006:9965  USPATFULL
TI     Compositions and methods of synthesis and use of novel nucleic acid
       structures
IN     Eritja, Ramon, Barcelona, SPAIN
       Garcia, Ramon Guimil, Heidelberg, GERMANY, FEDERAL REPUBLIC OF
PI     US 2006008813       A1  20060112
AI     US 2004-966672      A1  20041014 (10)
RLI    Continuation of Ser. No. US 2002-55732, filed on 22 Jan 2002, GRANTED,
       Pat. No. US 6831072 Continuation-in-part of Ser. No. US 2000-702066,
       filed on 30 Oct 2000, ABANDONED
PRAI   US 1999-162627P     19991029 (60)
       US 2000-197559P     20000417 (60)
DT     Utility
FS     APPLICATION
LREP   BUCHANAN INGERSOLL, P.C., ONE OXFORD CENTRE, 301 GRANT STREET, 20TH
       FLOOR, PITTSBURGH, PA, 15219, US
CLMN   Number of Claims: 10
ECL    Exemplary Claim: 1-8
DRWN   38 Drawing Page(s)
LN.CNT 2094
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     The present invention is directed to a method to produce
       8-amino-2'deoxyadenosine by treating 8-azido-2'deoxyadenosine with an
       aqueous solution of methylamine or dimethylamine.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15  ANSWER 2 OF 7  USPATFULL on STN
AN     2003:195229  USPATFULL
TI     Compositions and methods of synthesis and use of novel nucleic acid
       structures
IN     Eritja, Ramon, Barcelona, SPAIN
       Garcia, Ramon Guimil, Heidelberg, GERMANY, FEDERAL REPUBLIC OF
PI     US 2003135040       A1  20030717
       US 6831072          B2  20041214
AI     US 2002-55732       A1  20020122 (10)
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RLI Continuation-in-part of Ser. No. US 2000-702066, filed on 30 Oct 2000, PENDING
PRAI US 1999-162627P 19991029 (60)
US 2000-197559P 20000417 (60)
DT Utility
FS APPLICATION
LREP JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, SUITE 2800, ATLANTA, GA, 30309
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN 38 Drawing Page(s)
LN.CNT 1915
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to a method to produce 8-amino-2'deoxyadenosine by treating 8-azido-2'deoxyadenosine with an aqueous solution of methylamine or dimethylamine.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 3 OF 7 USPATFULL on STN
AN 1999:19304 USPATFULL
TI Synthesis of diverse and useful collections of oligonucleotidies
IN Shortle, David R., Baltimore, MD, United States
Sondek, John, New Haven, CT, United States
PA The Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)
PI US 5869644 19990209
AI US 1996-689346 19960808 (8)
RLI Continuation of Ser. No. US 1994-66178, filed on 30 Sep 1994, now abandoned which is a continuation-in-part of Ser. No. US 1992-868489, filed on 15 Apr 1992, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Chambers, Jasemine C.; Assistant Examiner: Priebe, Scott D.
LREP Banner & Witcoff, Ltd.
CLMN Number of Claims: 17
ECL Exemplary Claim: 1,3,10,15,16
DRWN 4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1003
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A new technique for generating mixtures of oligonucleotides in a single automated synthesis is taught. The method can be used to prepare mixed oligonucleotides ideally suited for creation of useful mixtures of oligo- or polypeptides or proteins. Additionally, the technique enables insertion and/or substitution and/or deletion of a nucleotide sequence at one or more sites. For protein mutagenesis, a trinucleotide can be inserted or substituted at codon boundaries. The invented technique makes possible the encoding of all possible single amino acid insertions, or any desired mixture of substitutions and insertions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 4 OF 7 USPATFULL on STN
AN 92:44943 USPATFULL
TI DNA-reporter conjugates linked via the 2' or 5'-primary amino group of the 5'-terminal nucleoside
IN Smith, Lloyd M., South Pasadena, CA, United States
Fung, Steven, Palo Alto, CA, United States
Kaiser, Jr., Robert J., Glendale, CA, United States
PA California Institute of Technology, Pasadena, CA, United States (U.S. corporation)
PI US 5118802 19920602
AI US 1991-661913 19910227 (7)

RLI Division of Ser. No. US 1988-287387, filed on 19 Dec 1988, now patented, Pat. No. US 5015733 which is a division of Ser. No. US 1988-878045, filed on 24 Jun 1988, now patented, Pat. No. US 4849513 which is a continuation-in-part of Ser. No. US 1985-709579, filed on 8 Mar 1985, now abandoned And a continuation-in-part of Ser. No. US 1983-565010, filed on 20 Dec 1983, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Brown, Johnnie R.; Assistant Examiner: Kunz, Gary L.
LREP Mueth, Joseph E.
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1793
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention consists of compounds and methods for the synthesis of oligonucleotides which contain one or more free aliphatic amino groups attached to the sugar moieties of the nucleoside subunits. The synthetic method is versatile and general, permitting amino groups to be selectively placed at any position on oligonucleotides of any composition or length which is attainable by current DNA synthetic methods. Fluorescent dyes or other detectable moieties may be covalently attached to the amino groups to yield the corresponding modified oligonucleotide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 5 OF 7 USPATFULL on STN
AN 92:44941 USPATFULL
TI Oligonucleotides possessing a primary amino group in the terminal nucleotide
IN Smith, Lloyd M., South Pasadena, CA, United States
Fung, Steven, Palo Alto, CA, United States
Kaiser, Jr., Robert J., Glendale, CA, United States
PA California Institute of Technology, Pasadena, CA, United States (U.S. corporation)
PI US 5118800 19920602
AI US 1991-661914 19910227 (7)
RLI Division of Ser. No. US 1988-287387, filed on 19 Dec 1988, now patented, Pat. No. US 5015733 which is a division of Ser. No. US 1988-878045, filed on 24 Jun 1988, now patented, Pat. No. US 4849513 which is a continuation-in-part of Ser. No. US 1985-709579, filed on 8 Mar 1985, now abandoned which is a continuation-in-part of Ser. No. US 1983-565010, filed on 20 Dec 1983, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Brown, Johnnie R.; Assistant Examiner: Kunz, Gary L.
LREP Mueth, Joseph E.
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1816
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention consists of compounds and methods for the synthesis of oligonucleotides which contain one or more free aliphatic amino groups attached to the sugar moieties of the nucleoside subunits. The synthetic method is versatile and general, permitting amino groups to be selectively placed at any position on oligonucleotides of any composition or length which is attainable by current DNA synthetic methods. Fluorescent dyes or other detectable moieties may be covalently attached to the amino groups to yield the corresponding modified oligonucleotide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 6 OF 7 USPATFULL on STN
AN 91:38568 USPATFULL
TI Nucleosides possessing blocked aliphatic amino groups
IN Smith, Lloyd M., South Pasadena, CA, United States
Fund, Steven, Palo Alto, CA, United States
Kaiser, Jr., Robert J., Glendale, CA, United States
PA California Institute of Technology, Pasadena, CA, United States (U.S. corporation)
PI US 5015733 19910514
AI US 1988-287387 19881219 (7)
RLI Division of Ser. No. US 1986-878045, filed on 24 Jun 1986, now patented, Pat. No. US 4849513, issued on 18 Jul 1989 which is a continuation-in-part of Ser. No. US 1985-709579, filed on 8 Mar 1985, now abandoned which is a continuation-in-part of Ser. No. US 1983-565010, filed on 20 Dec 1983, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Brown, Johnnie R.; Assistant Examiner: Kunz, Gary L.
LREP Mueth, Joseph E.
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1803
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention consists of compounds and methods for the synthesis of oligonucleotides which contain one or more free aliphatic amino groups attached to the sugar moieties of the nucleoside subunits. The synthetic method is versatile and general, permitting amino groups to be selectively placed at any position on oligonucleotides of any composition or length which is attainable by current DNA synthetic methods. Fluorescent dyes or other detectable moieites may be covalently attached to the amino groups to yield the corresponding modified oligonucleotide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 7 OF 7 USPATFULL on STN
AN 89:58823 USPATFULL
TI Deoxyribonucleoside phosphoramidites in which an aliphatic amino group is attached to the sugar ring and their use for the preparation of oligonucleotides containing aliphatic amino groups
IN Smith, Lloyd M., South Pasadena, CA, United States
Fung, Steven, Palo Alto, CA, United States
PA California Institute of Technology, Pasadena, CA, United States (U.S. corporation)
PI US 4849513 19890718
AI US 1986-878045 19860624 (6)
RLI Continuation-in-part of Ser. No. US 1983-565010, filed on 20 Dec 1983, now abandoned And Ser. No. US 1985-709579, filed on 8 Mar 1985, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Brown, Johnnie R.; Assistant Examiner: Tou, Jenny
LREP Mueth, Joseph E.
CLMN Number of Claims: 67
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1959
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention consists of compounds and methods for the synthesis of oligonucleotides which contain one or more free aliphatic amino groups attached to the sugar moieties of the nucleoside subunits. The synthetic method is versatile and general, permitting amino groups to be

selectively placed at any position on oligonucleotides of any composition or length which is attainable by current DNA synthetic methods. Fluorescent dyes or other detectable moieties may be covalently attached to the amino groups to yield the corresponding modified oligonucleotide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.